

# Aminomethanesulfonic acid

<b>Other names:</b>	Methanesulfonic acid, amino- (Aminomethyl)sulfonic acid Aminomethanesulphonic acid
<b>Inchi:</b>	InChI=1S/CH5NO3S/c2-1-6(3,4)5/h1-2H2,(H,3,4,5)
<b>InchiKey:</b>	OBESRABRARNZJB-UHFFFAOYSA-N
<b>Formula:</b>	CH5NO3S
<b>SMILES:</b>	NCS(=O)(=O)O
<b>Mol. weight [g/mol]:</b>	111.12
<b>CAS:</b>	13881-91-9

## Physical Properties

Property code	Value	Unit	Source
chs	-982.80 ± 1.00	kJ/mol	NIST Webbook
gf	-581.37	kJ/mol	Joback Method
hf	-635.76	kJ/mol	Joback Method
hfs	-727.30 ± 1.10	kJ/mol	NIST Webbook
hfus	19.01	kJ/mol	Joback Method
hvap	63.77	kJ/mol	Joback Method
log10ws	0.68		Crippen Method
logp	-1.210		Crippen Method
mcvol	68.890	ml/mol	McGowan Method
pc	9802.96	kPa	Joback Method
tb	434.77	K	Joback Method
tc	611.17	K	Joback Method
tf	283.67	K	Joback Method
vc	0.266	m3/kmol	Joback Method

## Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	135.49	J/molxK	434.77	Joback Method
cpg	140.44	J/molxK	464.17	Joback Method
cpg	145.21	J/molxK	493.57	Joback Method
cpg	149.81	J/molxK	522.97	Joback Method

cpg	154.24	J/mol×K	552.37	Joback Method
cpg	158.47	J/mol×K	581.77	Joback Method
cpg	162.51	J/mol×K	611.17	Joback Method

## Sources

<b>Crippen Method:</b>	<a href="https://www.chemeo.com/doc/models/crippen_log10ws">https://www.chemeo.com/doc/models/crippen_log10ws</a>
<b>Joback Method:</b>	<a href="https://en.wikipedia.org/wiki/Joback_method">https://en.wikipedia.org/wiki/Joback_method</a>
<b>McGowan Method:</b>	<a href="http://link.springer.com/article/10.1007/BF02311772">http://link.springer.com/article/10.1007/BF02311772</a>
<b>NIST Webbook:</b>	<a href="http://webbook.nist.gov/cgi/cbook.cgi?ID=C13881919&amp;Units=SI">http://webbook.nist.gov/cgi/cbook.cgi?ID=C13881919&amp;Units=SI</a>
<b>Crippen Method:</b>	<a href="http://pubs.acs.org/doi/abs/10.1021/ci9903071">http://pubs.acs.org/doi/abs/10.1021/ci9903071</a>

## Legend

<b>chs:</b>	Standard solid enthalpy of combustion
<b>cpg:</b>	Ideal gas heat capacity
<b>gf:</b>	Standard Gibbs free energy of formation
<b>hf:</b>	Enthalpy of formation at standard conditions
<b>hfs:</b>	Solid phase enthalpy of formation at standard conditions
<b>hfus:</b>	Enthalpy of fusion at standard conditions
<b>hvap:</b>	Enthalpy of vaporization at standard conditions
<b>log10ws:</b>	Log10 of Water solubility in mol/l
<b>logp:</b>	Octanol/Water partition coefficient
<b>mcvol:</b>	McGowan's characteristic volume
<b>pc:</b>	Critical Pressure
<b>tb:</b>	Normal Boiling Point Temperature
<b>tc:</b>	Critical Temperature
<b>tf:</b>	Normal melting (fusion) point
<b>vc:</b>	Critical Volume

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